

CADD Workflow for Quantities with Designer Interface



*Denise J Broom
FDOT*

Engineering CADD Systems Office

Objectives

- *Learn the recommended CADD workflow for getting quantities to Web Trns*port (wT).*
- *Show the new enhancements and features in the new Designer Interface.*
- *Learn how to generate the Summary of Pay Items Report from Webgate Reporting and create the Summary of Pay Items sheets in the CADD workspace.*

Acronyms Used

- *Designer Interface (DI)*
- *Web Trns*port (wT)*
- *Quantity Manager (QM)*
- *FDOT Takeoff Manager (FTM)*

Quantities – QM to wT – Workflow

- 1. Export the Project Header information (xml file) from DI*
- 2. Import the project header info into QM Project Preferences*
- 3. Export the quantities report from QM (xml file)*
- 4. Import the quantities to the project in DI*

Quantities – QM to wT – Workflow

1. Export the Project Header information (xml file) from DI
 - This can be done in 2 locations...
 - Project List
 - Project Details
 - (Click Update in the Project column to get to the Project Details)

Centennial FDOT 1915 ★ 2015 Designer Interface Web Trns*port Preconstruction

Logged in as: rd964db Logout Webgate Reporting Home Help

Project List

Project...	Project Number	aecXML Pro...	Description	Letting...	Unit Sy...	Proposal
Update	00000000000000	Export Header Import	CADD office testing		English	

Project 00000000000000 as XML (file size)

Centennial FDOT 1915 ★ 2015 Designer Interface Web Trns*port Preconstruction

Logged in as: rd964db Logout Webgate Reporting Home Help

Project List >> Project Details 00000000000000 CADD FTP Site

Federal #: N/A Letting Date: District: 00 Spec Year: 13 County: 55 - LEON Proposal:
Class: 7 - Class 7 Type: C - Construction Urban/Rural: Work Type: X1 - New Construction Work Mix:

Categories

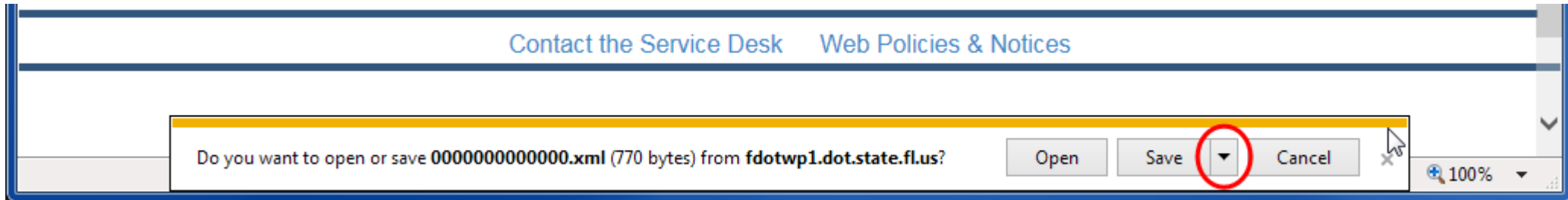
Delete Selected **Export Header** Import Add Category Copy Selected Category (none)

Delete	Number	Description	Alternate...	Bridge ID	Update	Ite...	View
<input type="checkbox"/>	0200	Roadway	null	null	Update	Ite...	View
<input type="checkbox"/>	0300	Signing	null	null	Update	Ite...	View

- On either screen, select Export Header.

Quantities – QM to wT – Workflow

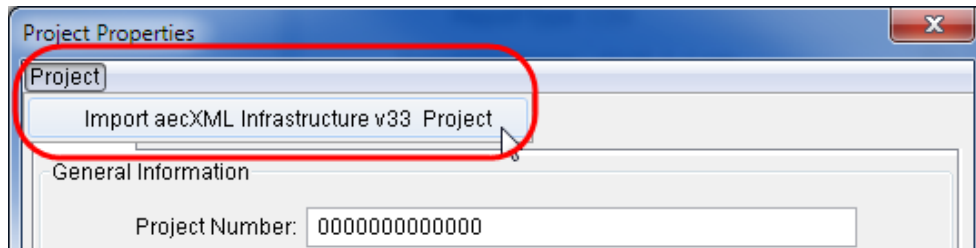
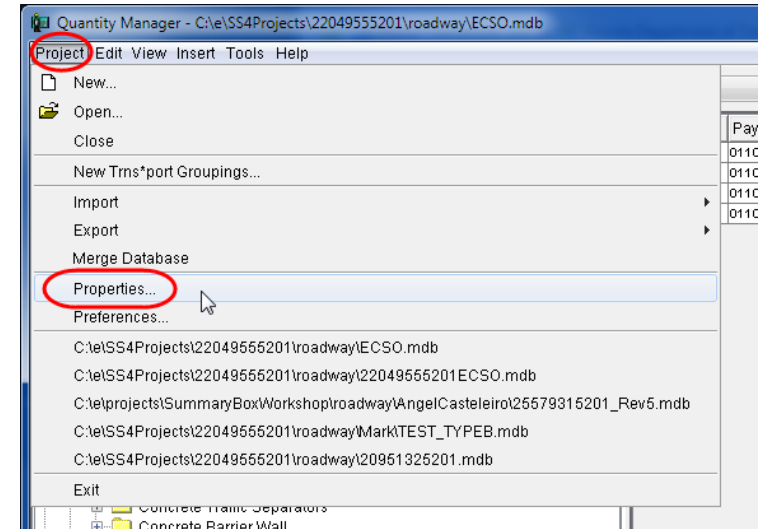
1. *Export the Project Header information (xml file) from DI*
 - *Select the drop down option beside the Save option and choose Save As.*
 - *Save the xml to the project discipline directory (i.e. Roadway).*



Quantities – QM to wT – Workflow

1. *Export the Project Header information (xml file) from DI*
2. *Import the project header info into QM Project Preferences*

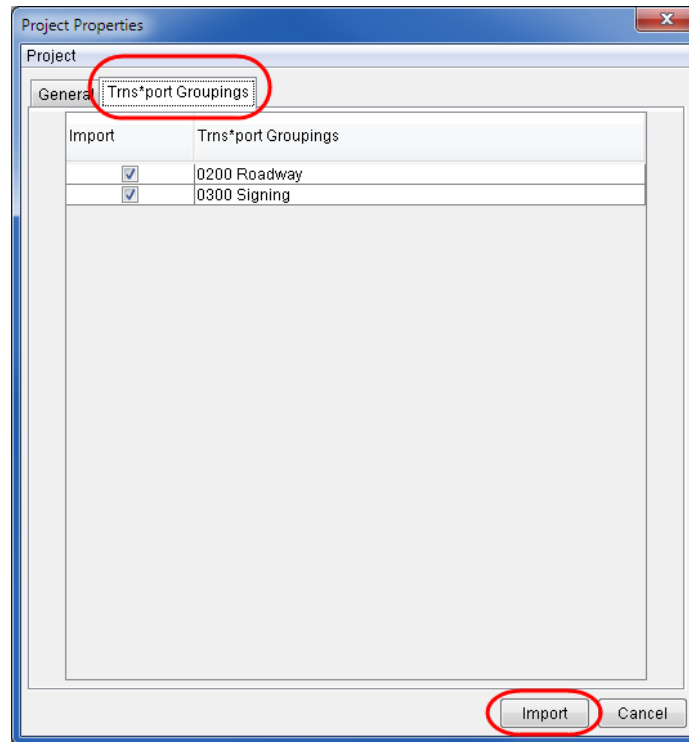
- *In QM, select Project > Properties.*
- *On Project Properties, select Project > Import aecXML Infrastructure v33 Project*



- *Select the downloaded file select Open.*

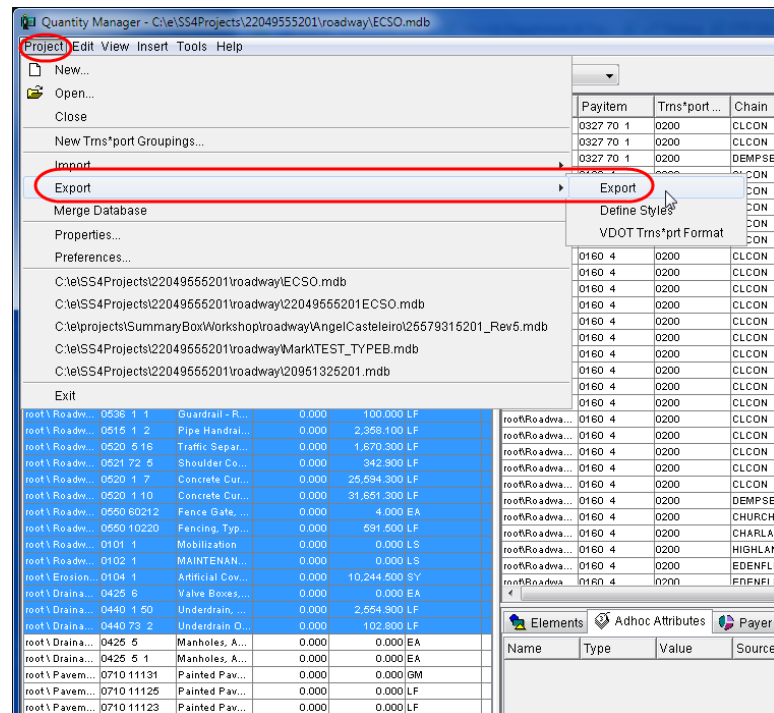
Quantities – QM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Import the project header info into QM Project Preferences
 - The Project Properties dialog opens with a new tab for the Trns*port Groupings.
 - Select the desired options and then click Import.



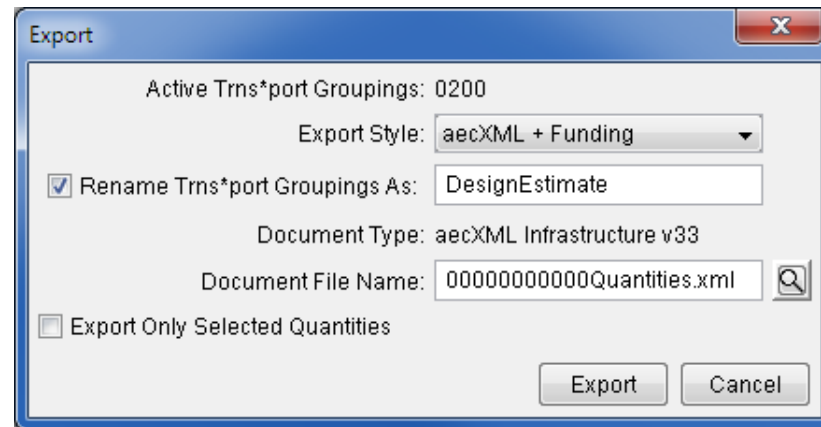
Quantities – QM to wT – Workflow

1. *Export the Project Header information (xml file) from DI*
2. *Import the project header info into QM Project Preferences*
3. *Export the quantities report from QM (xml file)*
 - *In the Payitem Table view of the Pay Item Pane, select all of the pay items desired to be exported.*
 - *Make sure the Trns*port Grouping is set correctly.*



Quantities – QM to wT – Workflow

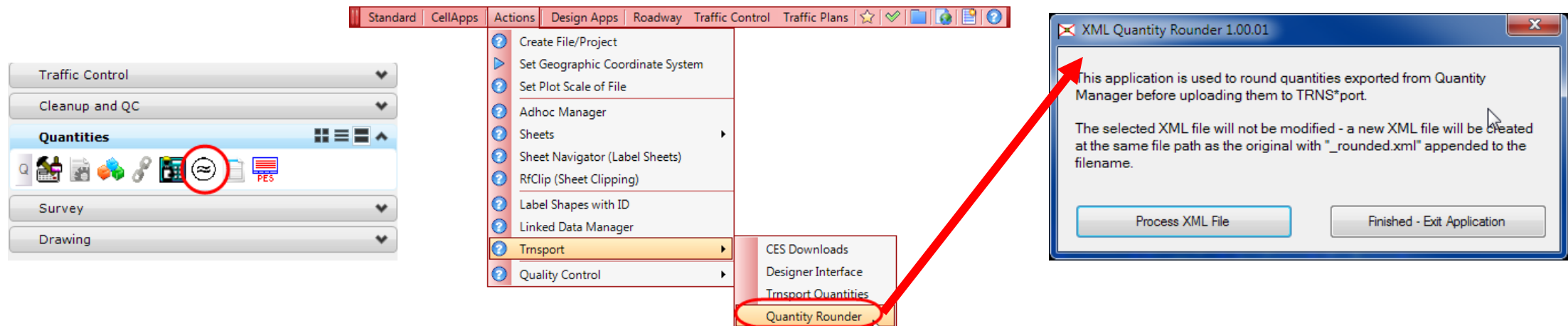
1. *Export the Project Header information (xml file) from DI*
2. *Import the project header info into QM Project Preferences*
3. *Export the quantities report from QM (xml file)*
 - *On the Export dialog, select the Export Style, aecXML + Funding*
 - *Toggle ON the Rename option and leave as the default “DesignEstimate”.*
 - *Type in a name for the xml file generated.*
 - *Click Export.*



- *Click OK on the information dialog about Properties missing. This is normal. The file generated will have all the necessary information.*
- *Click OK on the Export Complete information dialog.*

Quantities – QM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Import the project header info into QM Project Preferences
3. Export the quantities report from QM (xml file)
 - In MS, open the Quantity Rounder tool.
 - Located on the FDOT Plans Development task menu > Quantities
 - OR – on the FDOT Actions Menu under Transport



- Click Process XML File.
- Navigate to and select the file exported from QM.
- Click OK on the Created file dialog and then click Finished – Exit Application.

Quantities – QM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Import the project header info into QM Project Preferences
3. Export the quantities report from QM (xml file)
4. Import the quantities to the project in DI
 - On either the Project List or Project Details view, click on Import.

Project List >> Project Details - 00000000000000 CADD FTP Site

Federal #: N/A Letting Date: District: 00 Spec Year: 13 County: 55 - LEON Proposal:
Class: 7 - Class 7 Type: C - Construction Urban/Rural: Work Type: X1 - New Construction Work Mix:

Categories

Delete Selected Export Header **Import** Add Category Copy Selected Category (none)

Delete	Number	Description	Alternate...	Bridge ID	Update	Ite...	View
<input type="checkbox"/>	0200	Roadway	null	null	Update	Ite...	View
<input type="checkbox"/>	0300	Signing	null	null	Update	Ite...	View

- Click on Select Files... and then navigate to the file exported and then rounded from the project directory. (It will have _Rounded appended to the file name.)
- Once selected click on Upload file.

Quantities – QM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Import the project header info into QM Project Preferences
3. Export the quantities report from QM (xml file)
4. Import the quantities to the project in DI
 - The results will show up on the screen. **This is ALL or nothing.**

- **Green – Load Successful**

- **Red – Errors (nothing loaded)**

Project Load Log Messages

	Data validation successful.	Project successfully loaded.
INSERT Project Item	Project: 00000000000000 Category: 0200 Item: 0110 4 2	
INSERT Project Item	Project: 00000000000000 Category: 0200 Item: 0425 5 1	
INSERT Project Item	Project: 00000000000000 Category: 0200 Item: 0425 5 1	
UPDATE Project Item	Project: 00000000000000 Category: 0200 Item: 0327 70 1	
UPDATE Project Item	Project: 00000000000000 Category: 0200 Item: 0327 70 1	

Page 1 of 3 10 Items per page 1 - 10 of 29 items

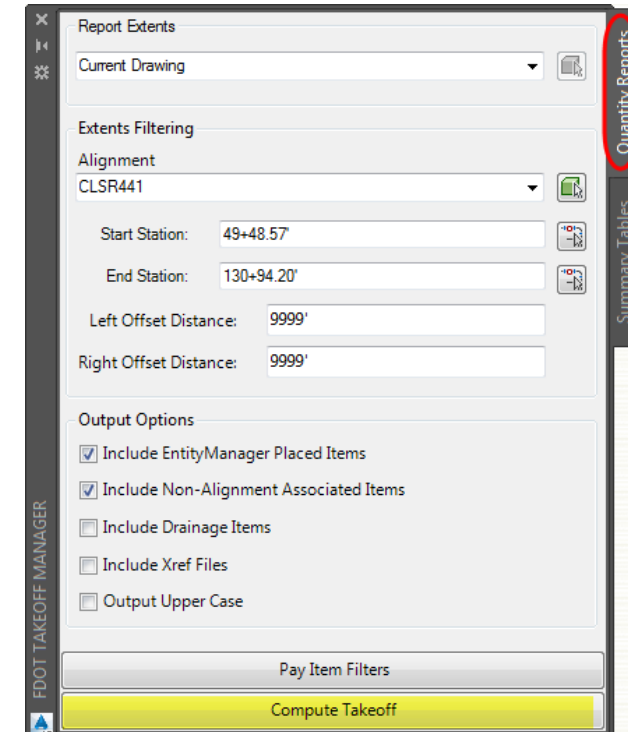
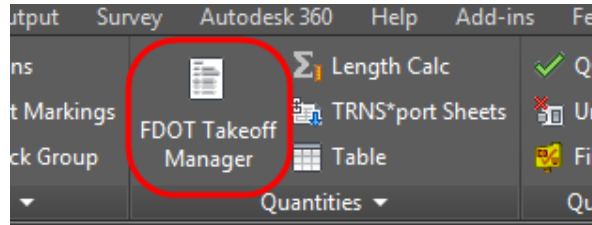
Type	Info	Data Validation Errors
Project Category	Project: Category: DesignEstimate Item: Quantity:	Invalid category number. Must be numeric (E16)

Quantities – FTM to wT – Workflow

- 1. Export the Project Header information (xml file) from DI*
- 2. Export the quantities report from FTM (xml file)*
- 3. Import the quantities to the project in DI*

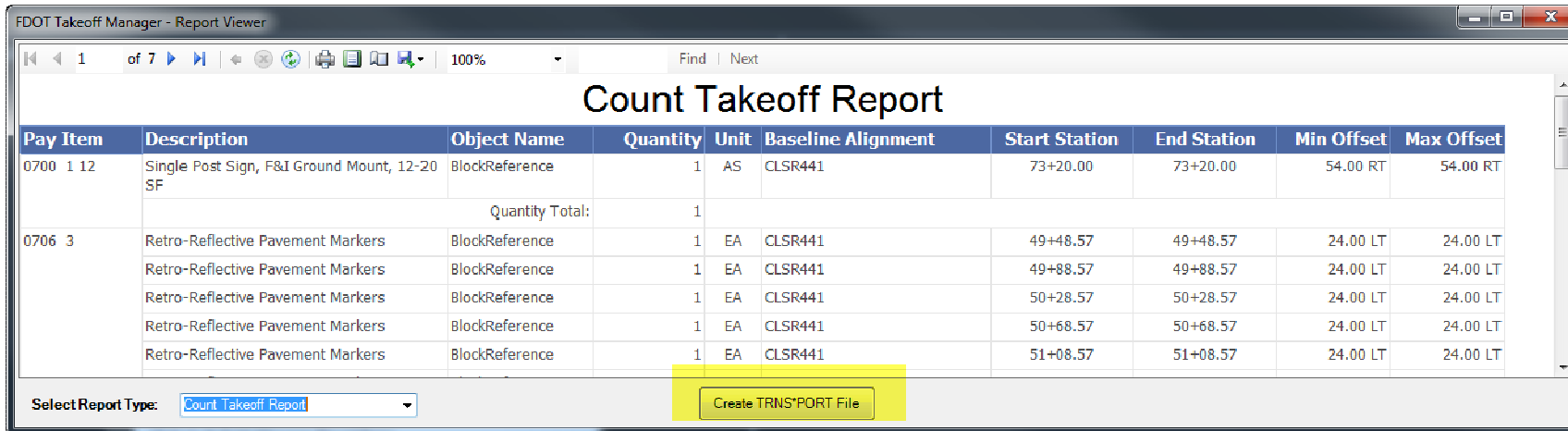
Quantities – FTM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Export the quantities report from FTM (xml file)
 - Open FDOT Takeoff Manager from the FDOT Ribbon
 - Select the Quantity Reports tab
 - Set up the dialog with the required information and desired options
 - Click Compute Takeoff



Quantities – FTM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Export the quantities report from FTM (xml file)
 - FDOT Takeoff Manager - Report Viewer opens
 - Select the Create TRNS*PORT File button



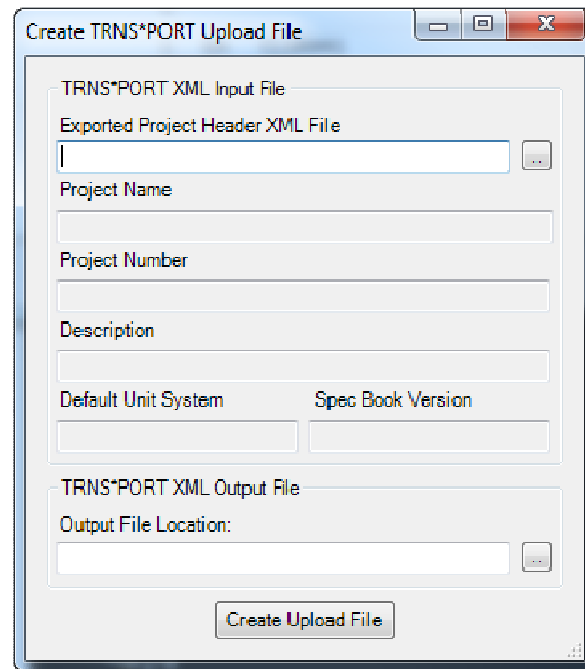
The screenshot shows the 'FDOT Takeoff Manager - Report Viewer' window. The title bar includes standard window controls and a zoom level of 100%. The main content area displays a 'Count Takeoff Report' table. The table has columns for Pay Item, Description, Object Name, Quantity, Unit, Baseline Alignment, Start Station, End Station, Min Offset, and Max Offset. The data includes a 'Single Post Sign, F&I Ground Mount, 12-20 SF' and five rows of 'Retro-Reflective Pavement Markers' at various stationing points. A 'Quantity Total' row is also present. At the bottom, there is a 'Select Report Type' dropdown menu set to 'Count Takeoff Report' and a yellow 'Create TRNS*PORT File' button.

Pay Item	Description	Object Name	Quantity	Unit	Baseline Alignment	Start Station	End Station	Min Offset	Max Offset
0700 1 12	Single Post Sign, F&I Ground Mount, 12-20 SF	BlockReference	1	AS	CLSR441	73+20.00	73+20.00	54.00 RT	54.00 RT
	Quantity Total:		1						
0706 3	Retro-Reflective Pavement Markers	BlockReference	1	EA	CLSR441	49+48.57	49+48.57	24.00 LT	24.00 LT
	Retro-Reflective Pavement Markers	BlockReference	1	EA	CLSR441	49+88.57	49+88.57	24.00 LT	24.00 LT
	Retro-Reflective Pavement Markers	BlockReference	1	EA	CLSR441	50+28.57	50+28.57	24.00 LT	24.00 LT
	Retro-Reflective Pavement Markers	BlockReference	1	EA	CLSR441	50+68.57	50+68.57	24.00 LT	24.00 LT
	Retro-Reflective Pavement Markers	BlockReference	1	EA	CLSR441	51+08.57	51+08.57	24.00 LT	24.00 LT

Select Report Type:

Quantities – FTM to wT – Workflow

1. Export the Project Header information (xml file) from DI
2. Export the quantities report from FTM (xml file)
 - Create TRNS*PORT Upload File opens
 - Navigate to the Project Header xml file downloaded from DI
 - Set the Output File Location with a file name
 - Select Create Upload File



The screenshot shows a software dialog box titled "Create TRNS*PORT Upload File". It contains two main sections: "TRNS*PORT XML Input File" and "TRNS*PORT XML Output File".

TRNS*PORT XML Input File

- Exported Project Header XML File:** A text field with a browse button (three dots).
- Project Name:** A text field.
- Project Number:** A text field.
- Description:** A text field.
- Default Unit System:** A dropdown menu.
- Spec Book Version:** A dropdown menu.

TRNS*PORT XML Output File

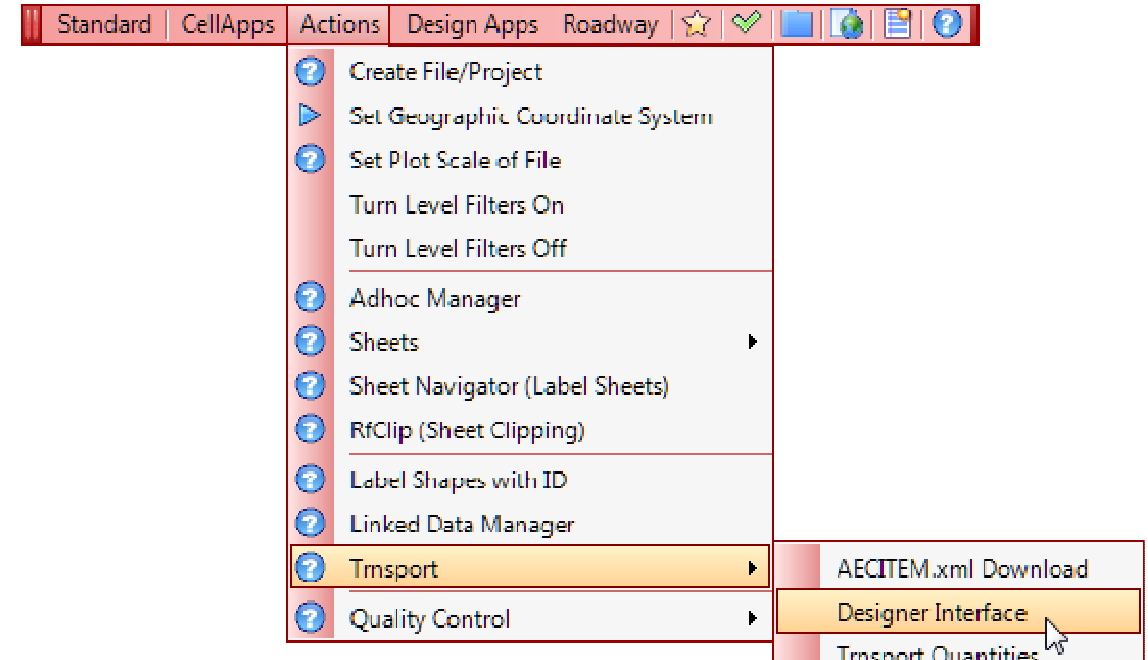
- Output File Location:** A text field with a browse button (three dots).

At the bottom of the dialog is a button labeled "Create Upload File".



Manual Entry – Designer Interface

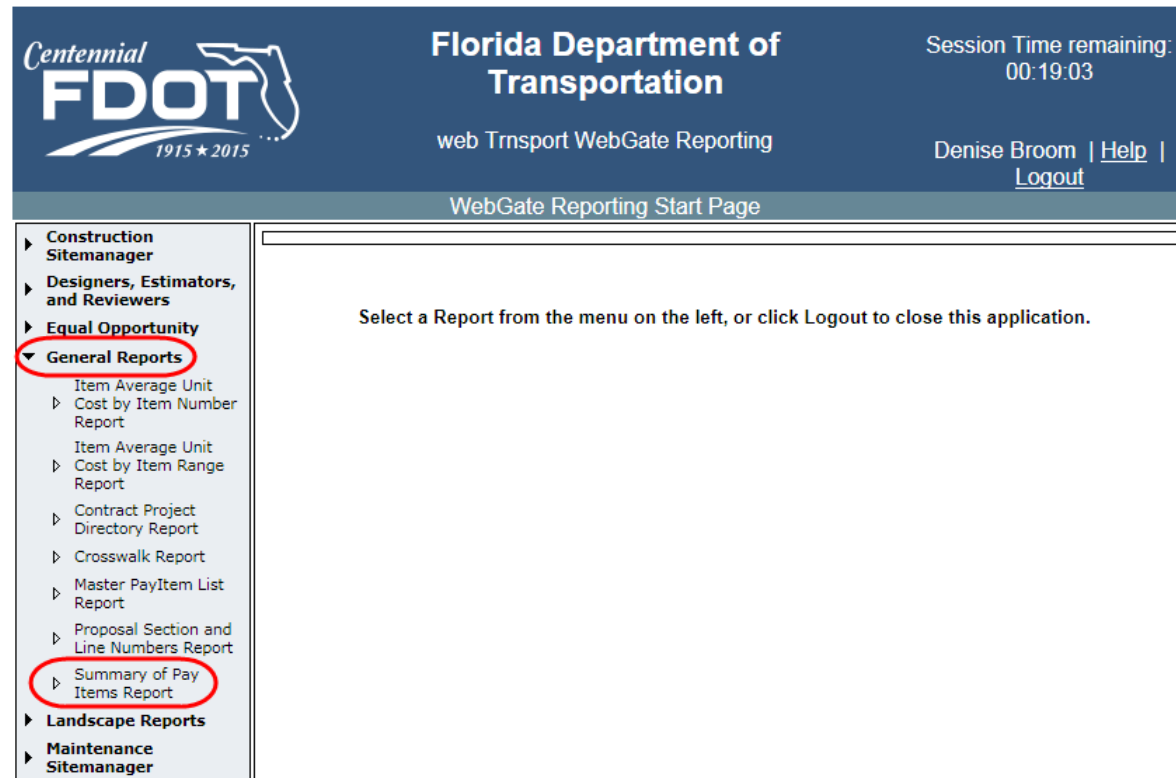
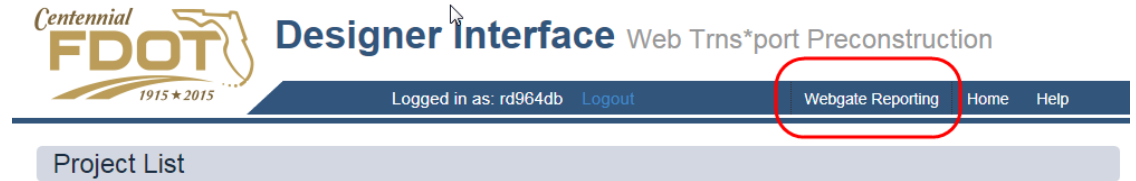
- *WebGate page can be accessed from FDOT Menu or Quantities Task Menu*



- *Let's take a look at the new Designer Interface and the enhancements.*

Summary of Pay Items – Workflow

- Access Webgate Reporting
 - From DI
 - From Webgate site
- Select General Reports > Summary of Pay Items Report



Summary of Pay Items – Workflow

- *Select the Project*
- *Select Report Type: CADD File*
- *Click Submit*
- *Select the Save As option*
 - *Rename the file if the Project Header file is named the same as the default.*

Centennial FDOT 1915 ★ 2015

Florida Department of Transportation

web Transport WebGate Reporting

Session Time remaining: 00:19:36

Denise Broom | [Help](#) | [Logout](#)

Summary of Pay Items

This report produces a summary of pay items and quantities for a selected project. If proposal exist the report will be of the proposal level, if no proposal the report will be of the project level. Either level, project or proposal, may be used for phase reviews; the proposal summary must be used for final plans. Identifies the participating and non-participating quantity for each pay item.

[Click to view video on how to create Summary of Pay Item sheets using the XML file.](#)

Select/Enter Parameter Information: Required fields marked with asterisk(*)

Select Project: 00000000000000

Report Type: ☐ Report File ☒ CADD File

Do you want to open or save 00000000000000.xml from fdotwp1.dot.state.fl.us?

Summary of Pay Items – Workflow

- *Summary of Pay Items sheets*
 - *Standard File Name – CESSRD*

Create File/Project

Project: C:\e\projectsSS4\22049555201QT Project Settings

Workspace: FDOTSS4

Control File: ROADWAY.CTL

File Group: Roadway Design Files (DGN)

File Type:

- PROFILE SHEETS
- PROJECT LAYOUT SHEETS
- PROJECT NOTES
- PROJECT PROFILE LAYOUT
- PROPOSED DESIGN
- PROPOSED DIGITAL TERRAIN SURFACE MODELS
- PROPOSED PROFILE
- QUANTITY COMPUTATION DETAILS
- QUANTITY COMPUTATION SHAPES/CALCULATIONS
- RIGHT OF WAY DETAILS FOR ROADWAY
- ROADWAY CROSS SECTIONS
- SELECTIVE CLEARING AND GRUBBING SHEET
- SPECIAL DETAILS SHEET
- STORM WATER POLLUTION PREVENTION PLAN
- SUMMARY OF DRAINAGE STRUCTURES
- SUMMARY OF PAY ITEM SHEETS**
- SUMMARY OF QUANTITIES SHEETS
- SUMMARY OF VERIFIED UTILITIES (2D)
- SURVEY OF VERIFIED UTILITIES (2D)
- SURVEY OF VERIFIED UTILITIES (3D VERSION OF UTEXRD DGN)

Output File: CESSRD01

Output Folder: Roadway\ Browse

Seed File: fdotseed2d.dgn Browse

Seed Path: resources/seed/

Action: mdl | plotscale;plotscale set Apply Action

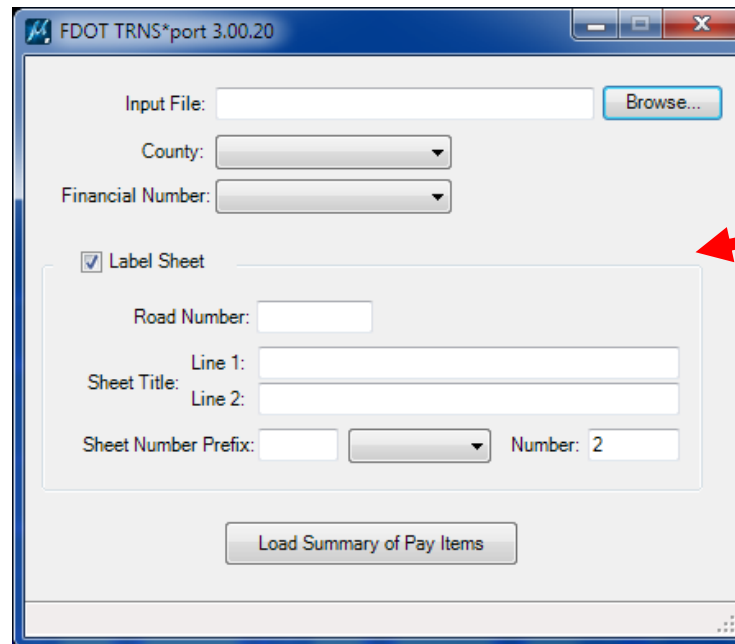
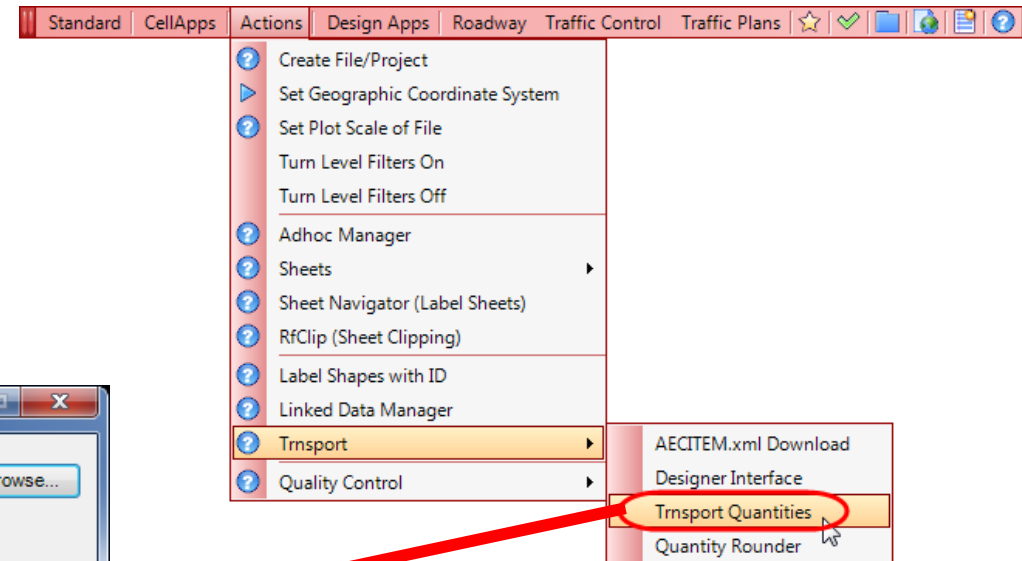
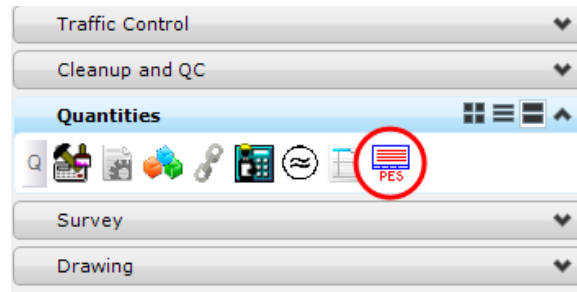
Create Open File

Active File for Open/Edit: CESSRD01.DGN

OK

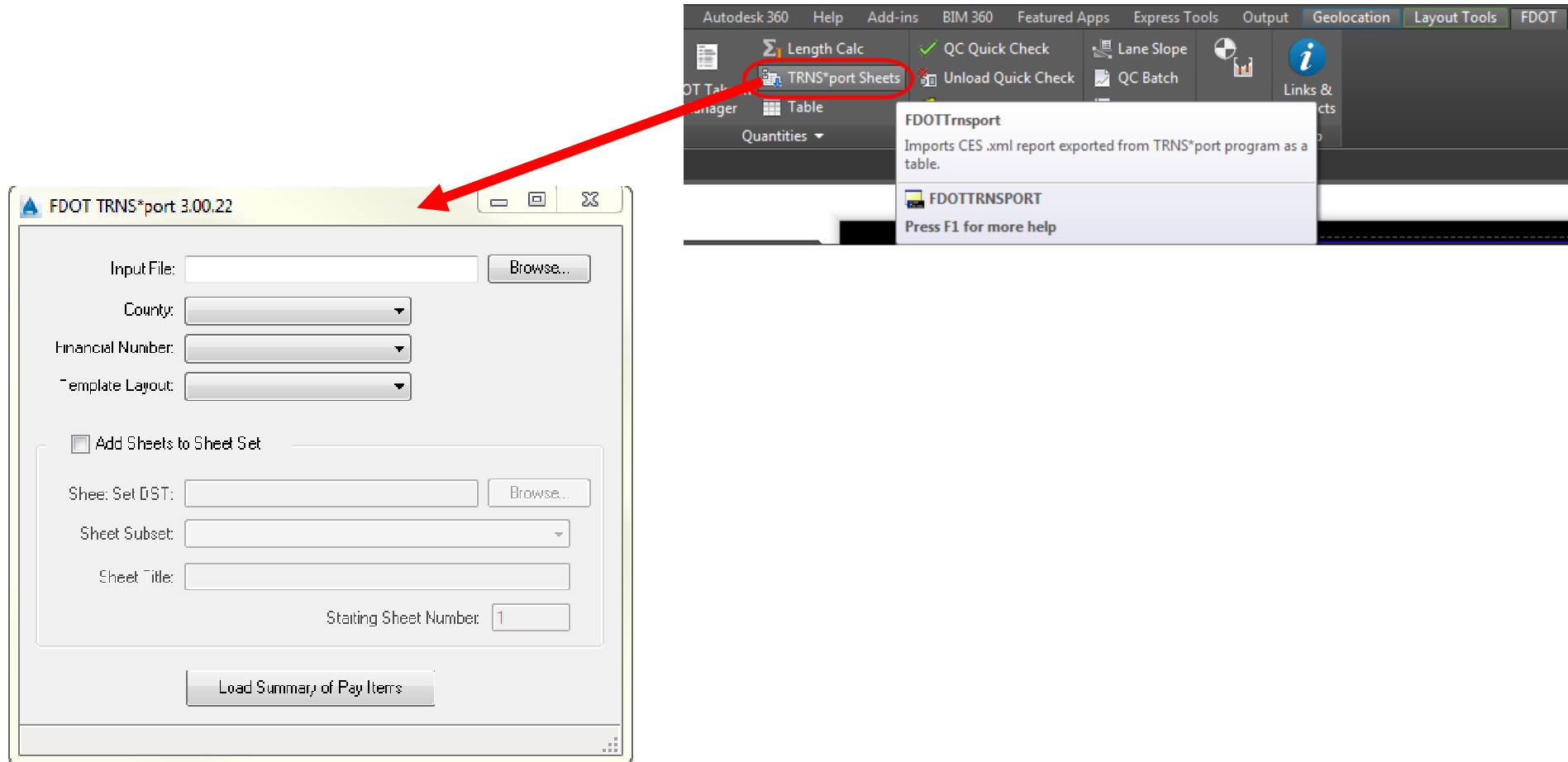
Summary of Pay Items – Workflow

- In MS, open the FDOT TRNS*port tool



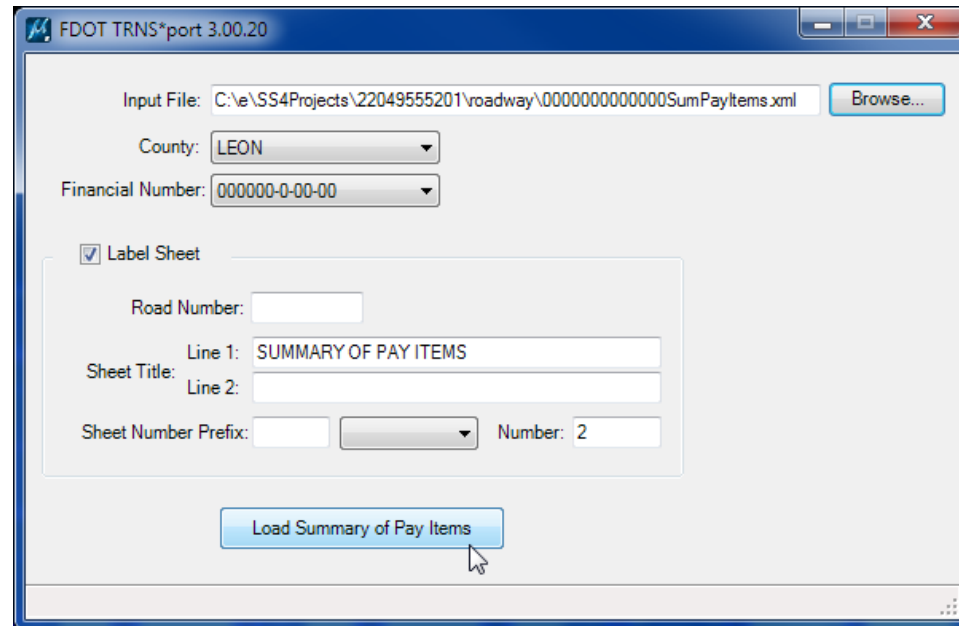
Summary of Pay Items – Workflow

- In Civil 3D, select TRNS*port Sheets from the FDOT Ribbon.*



Summary of Pay Items – Workflow

- Select the Browse button and navigate to the saved Summary of Pay Items report xml file.
- County and Financial Number are pulled in from the XML file.
- Label Sheet is toggled on by default.
 - Optional
- Click Load Summary of Pay Items.
 - Always uses scale of 1.



The screenshot shows the 'FDOT TRNS*port 3.00.20' application window. It contains the following fields and controls:

- Input File:** A text box showing the path 'C:\e\SS4Projects\22049555201\roadway\00000000000000SumPayItems.xml' and a 'Browse...' button.
- County:** A dropdown menu currently set to 'LEON'.
- Financial Number:** A dropdown menu currently set to '000000-0-00-00'.
- Label Sheet:** A checkbox that is checked.
- Road Number:** An empty text box.
- Sheet Title:** Two text boxes: 'Line 1: SUMMARY OF PAY ITEMS' and 'Line 2: '.
- Sheet Number Prefix:** A dropdown menu and a text box containing the number '2'.
- Load Summary of Pay Items:** A large blue button at the bottom with a mouse cursor hovering over it.



Questions???

Thank-you for joining today's session.

Need some HELP? Contact me...

(850) 414-4751

E-mail: Denise.Broom@dot.state.fl.us

OR: ecso.support@dot.state.fl.us

<http://www.dot.state.fl.us/ecso>

FDOT CADD Support Forum On-line

http://communities.bentley.com/communities/user_communities/fdot_cadd_support/default.aspx